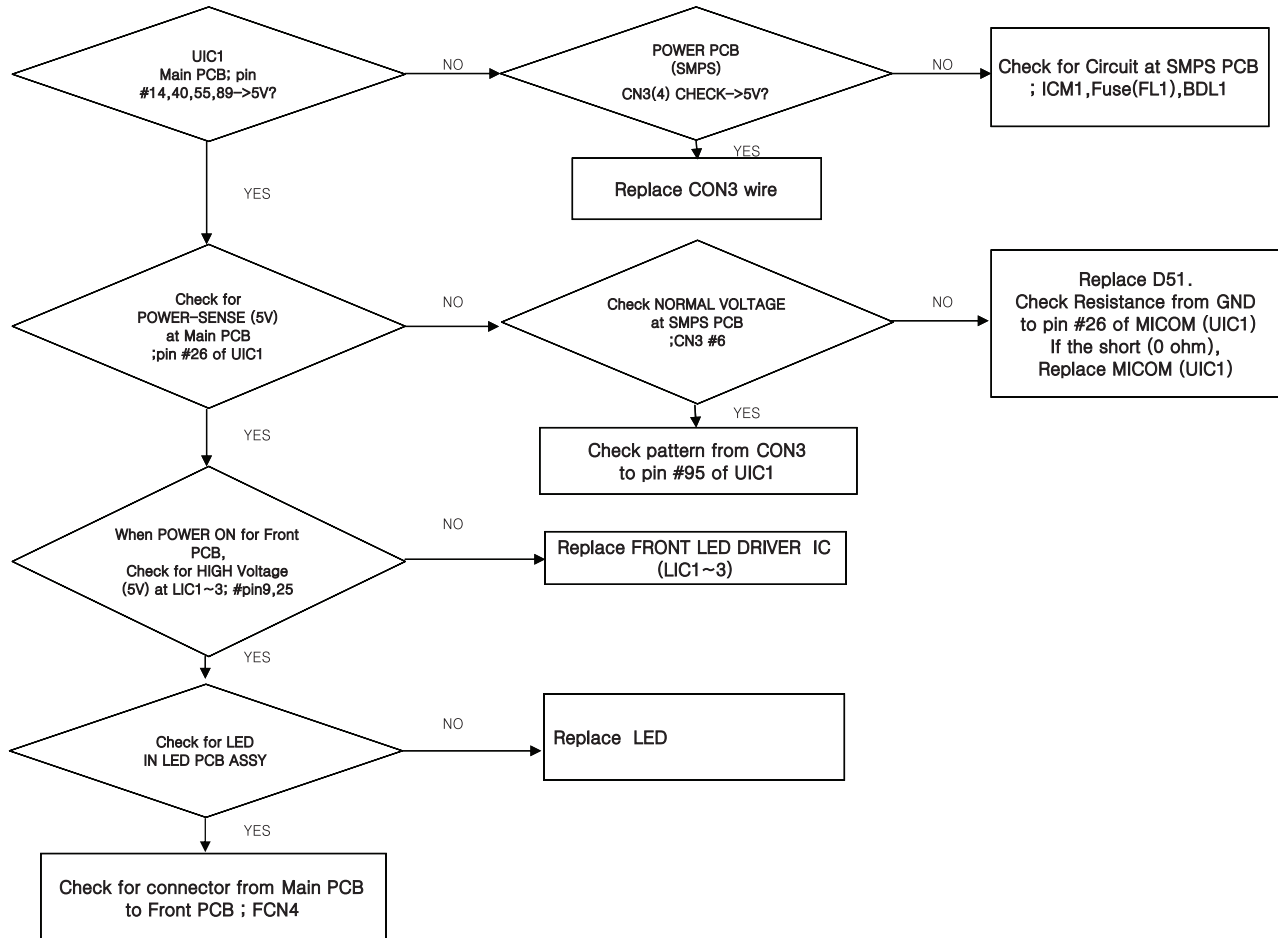
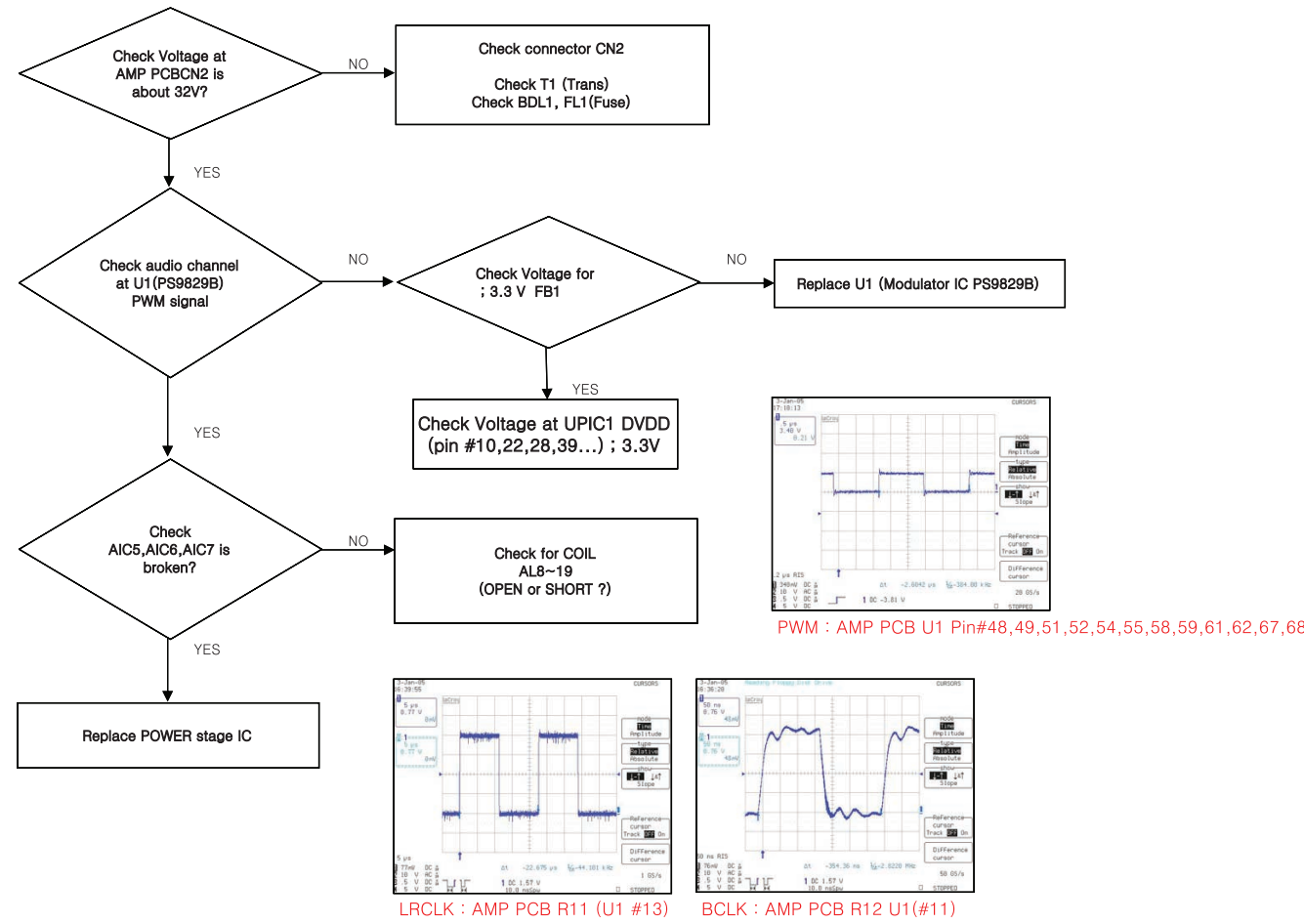


## 6. TroubleShooting

### 1. Main



## 2. Output



### 3-1. In case of Power Protection

---

#### The Condition of Power Protection Active

1> Voltage of SMPS's PVDD(+32V, CN2) is higher or lower than Standards

Normal Condition Voltage Range : PVDD(+32V, CN2) : about 32V

2> Over-current occurs to AMP IC (Over-output or Output short)

3> AMP IC's temperature exceed 150℃

4> No supply voltage on GATE DRIVER

X250/200 SMPS	LOACATION	PIN NO.	Protection Circuit active		NOTE
			OPEN	SHORT	
	CN3	+8V	X	-	
		+5V	X	O	
		+3.3V	X	X	
		+5.6V	X	X	
		+L5V	X	X	
	CN2	PVDD(about 32V)	O	O	
		-12V	X	X	
		+12V	X	O	

### 3-2. SMPS Ass'y (Power check)

---

Cases of the SMPS Protection.

**1> If there is over current at the AMP IC (Speaker Wire Short)**

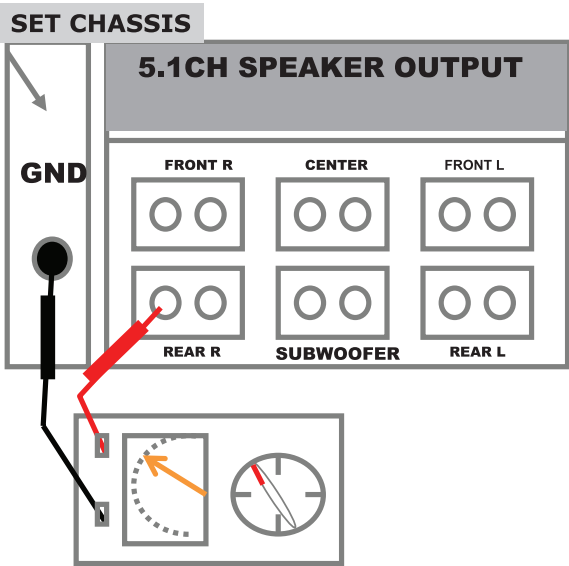
**2> If temperature of the Amp Ic is over **150** °C**

**3> There is no power input at GATE DRIVER**

	Location	PIN NO.	Protection		NOTE
			OPEN	SHORT	
HT-X250 POWER LINE (CONNECTOR)	CN4	+5V(#1,#9,#10)	X	O	
		+5.6V (#4)	X	O	
		+3.3V (#11,#12)	X	X	
		+8V(#15)	X	X	
	AJ1	PVDD(about 31.4V) (#7~#9)	O	O	
		-12V(#3)	X	X	
		+12V(#1)	O	O	"FAN CHK"

3-3. AMP Pre-Inspection relating to Power Protection

You can CHECK AMP Malfunction before disassembling Main Unit (Do NOT Insert AC-Cord in AC-Socket)



Measurement Resistance using Tester			
- approximately			
	X250/200		
F/R CH	10kΩ /-		
CENTER	10kΩ/-		
SUBWOOFER	10kΩ		
If Measured Resistance is very different from above numbers, There is a Problem. → AMP PCB Problem			

## 4. FAN Error Check

---

**HT-X250 has one small Fan and Fan Circuit to control the temperature of the SET inside**  
**FAN is Automatically worked (Approximately 45 Sec after power On)**  
**If there are problems, “FAN CHK” will be displayed and power off.**

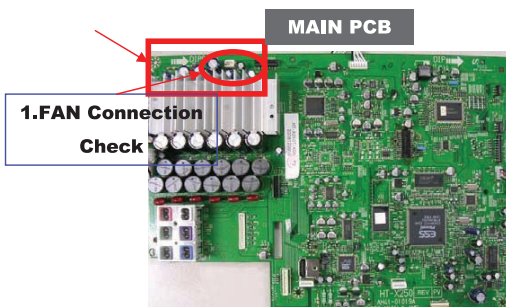
### 1.Symptom

Display “FAN CHECK” → Power Off (about 1 minute)

### 2.Method

- 1.Check the Fan Connector → MAIN PCB [AJ4]
- 2.Check around the Fan (something is blocking the FAN or not)
- 3.Check the FAN Circuit (Check FAN circuit is shorted or opened )

#### 2.FAN Circuit



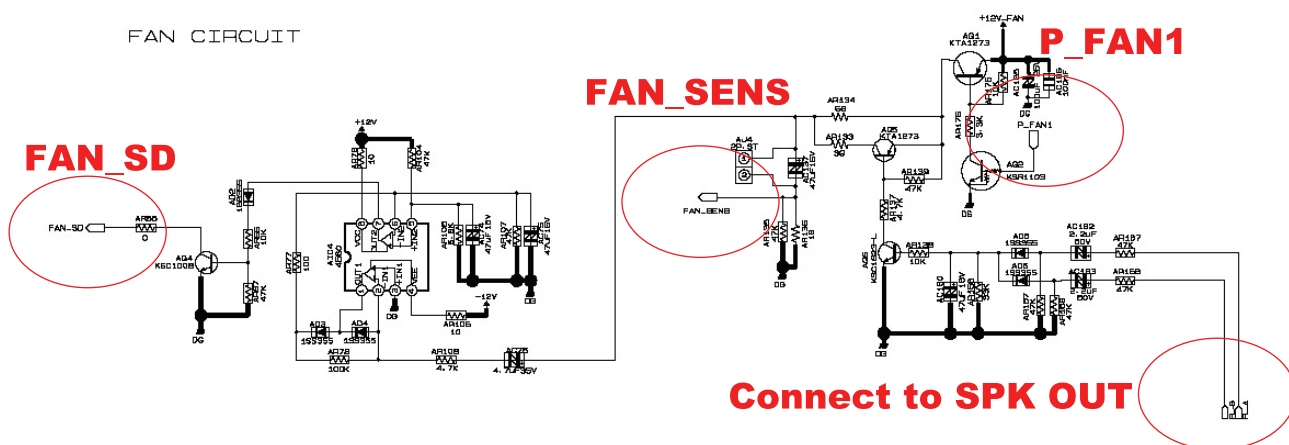
#### FAN



### 3.Procedure

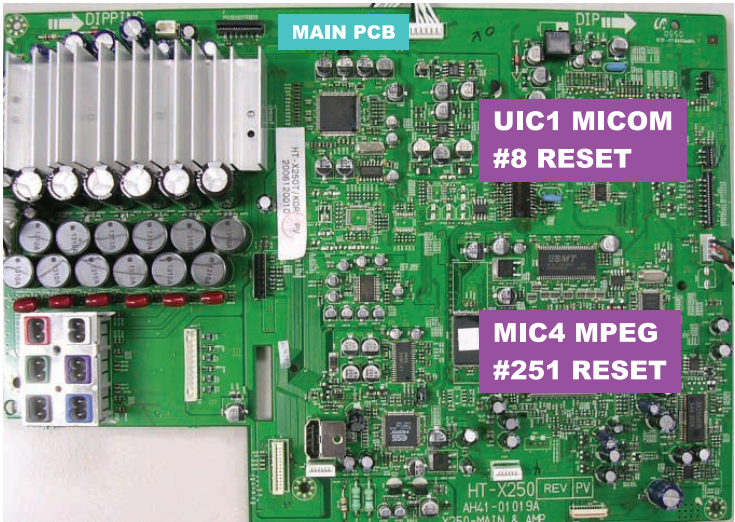
- **Micom is sending a start message to FAN by P\_FAN1**
- **Check the FAN\_SENS Port (Connection,Operating)**
- **If there are problems, send a message “shut down” to FAN\_SD port (Voltage Check)**

## FAN CIRCUIT



6-1. Communication Failure

1	Symptom	Cause	Check Point
	SET is not working.	Reset Line problem	Reset Line (MICOM#8,MPEG#251)



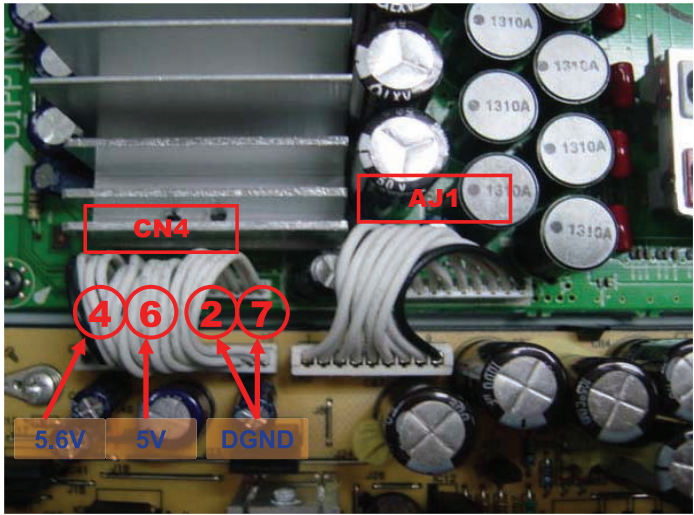
**RESET Insecure : It should be 3V after power ON**



6-2. Voltage Failure

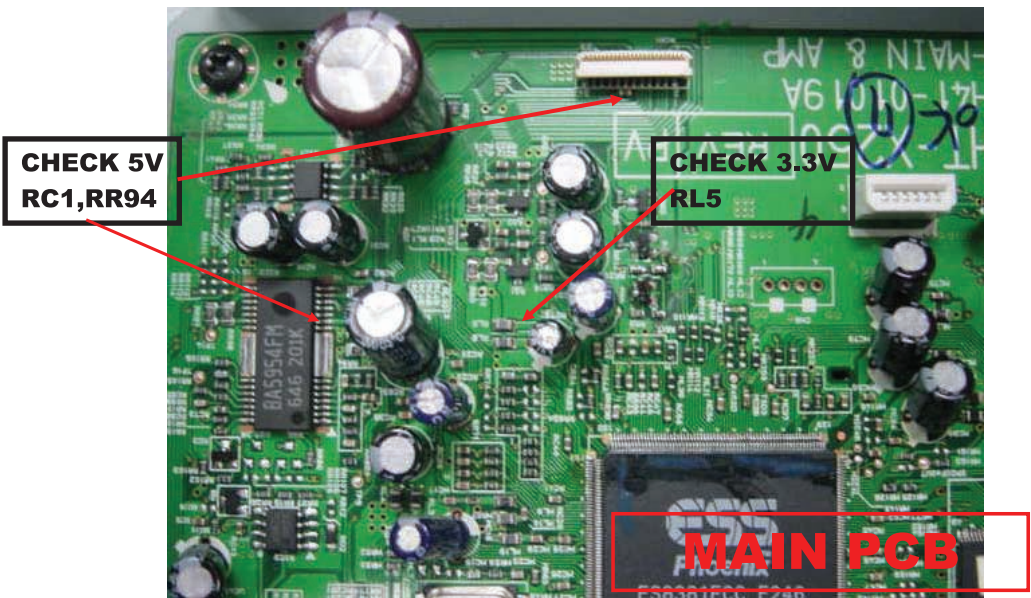
2	Symptom	Cause	CHECK POINT
	POWER PROTECTION	POWER SHORT	CON3 D5V, DGND

MAIN PCB



\*Minimum Voltage : 5V ==> Above 4.8V

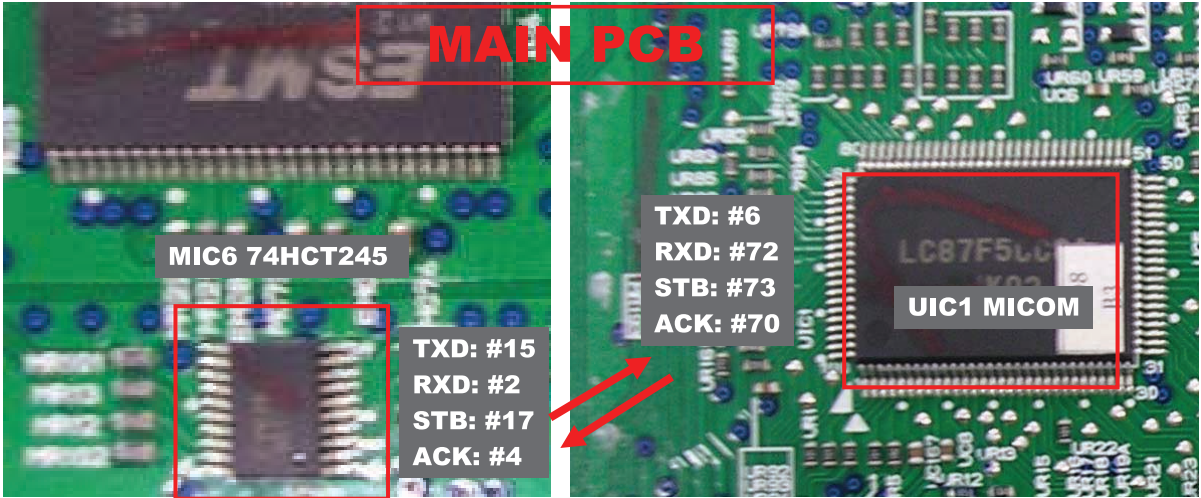
3	Symptom	Cause	CHECK POINT
	Specific DISC can not PLAY(DUAL)	3.3V,5V drop	MVCC, RF50V, VD33RF





6-3. Communication Failure

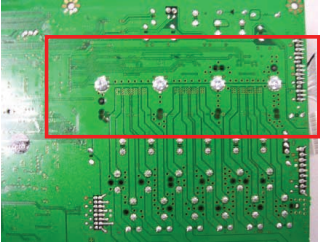
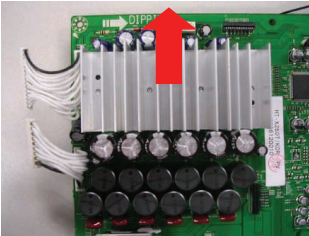

	Symptom	Cause	CHECK POINT
5	No Action & No Play	MPEG-MICOM Communication Line open or short	TXD: MICOM#6 – MIC6#15 RXD: MICOM#72 – MIC6#2 STB: MICOM#73 – MIC6#17 ACK: MICOM#70 – MIC6#4



**RXD : Above 4.6V**  
**TXD : 4.8 <=>0V continuous change**

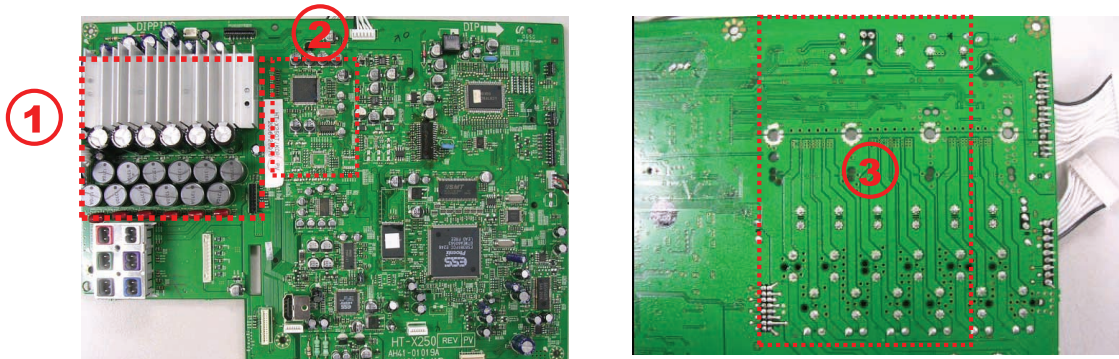
7. Checking out AMP PCB

---

1.PCB ASS'Y	2.HEAT SINK	3.PCB Short
		
Unfasten 4 Screws	Separate Heat Sink	Check Power Ics TAS5142

## 8. AMP PCB Short Check flow

---



- 1) Check parts. (short/IC damage/pattern damage)
- 2) Check connectors
- 3) Short test of the Connectors.